

SOME SPIDERS FROM ACAPULCO, MEXICO*

BY ELIZABETH B. BRYANT

Museum of Comparative Zoölogy

The Museum of Comparative Zoölogy has recently received two small collections of spiders made at Acapulco, by Dr. Harriet E. Frizzell in September 1940, of 4 species and a larger collection of 31 species by Dr. Sarah E. Jones taken in December 1944. Of these 35 species, 8 and an allotype are new. All of these are small and easily overlooked by the casual collector. It is a locality from which the Cambridges had little material when they wrote the two volumes of the *Biologia Centrali-Americana*, published in 1889-1905. In a short paper by Dr. W. J. Gertsch in 1907, several species from this locality were included but all were collected at a different season of the year.

The following is a list of the species found. All were collected in December with the exception of the four marked September.

Family ŒCOBIIDÆ

♂ ♀ *Œcobius beatus* Gertsch and Davis

Family LYCOSIDÆ

♂ ♀ pullus *Sosippus mexicanus* Simon, Sept.

Family SICARIIDÆ

pullus *Scytodes championi* F.O.P.-Cambr.
♀ “ *hebraica* Simon

Family PHOLCIDÆ

♂ ♀ *Physocylus globosus* (Tacz.)

Family DICTYNIDÆ

♀ *Dictyna* sp.

♀ “ *nivea* (O.P.-Cambr.)

*Published with a grant from the Museum of Comparative Zoölogy at Harvard College.

Family THERIDIIDÆ

- ♀ *Latrodectus mactans* (Fabr.)
 ♀ *Theridion maculipes* spec. nov.
 ♀ " *placidum* spec. nov.

Family LINYPHIIDÆ

- ♀ *Eperigone* ?

Family ARGIOPIDÆ

- ♂ pullus *Argiope* sp. Sept.
 ♂ ♀ *Aranea pallidulus* (Keys.)
 ♂ ♀ " *vesta* spec. nov.
 ♀ *Eriophora edax* (O.P.-Cambr.)
 ♀ *Neosconella lineatipes* (O.P.-Cambr.)
 ♂ ♀ " *oaxacensis* (Keys.) Sept.
 ♂ *Tetragnatha alba* F.O.P.-Cambr.
 ♂ ♀ " *antillana* Simon
 ♂ ♀ " *dentigera* F.O.P.-Cambr.
 ♂ ♀ " *guatemalensis* O.P.-Cambr.
 ♀ pullus *Theridiosoma* ?

Family THOMISIDÆ

- ♂ *Misumenops celer* (Hentz)
 2 ♂ ♀ pullus *Misumenops dubius* (Keys.)

Family CLUBIONIDÆ

- ♀ pullus *Anyphæna*
 ♀ *Anyphænella pavidæ* spec. nov.

Family SALTICIDÆ

- ♂ ♀ *Habronattus cambridgei* spec. nov.
 ♀ *Marpissa melanognatha* (Lucas)
 ♂ ♀ *Metaphidippus gratus* spec. nov.
 ♂ " *militaris* (Hentz)
 ♂ ♀ " *purus* spec. nov.
 ♀ *Phiale simplicicava* (F.O.P.-Cambr.)
 ♀ *Plexippus fannæ* (Peckham)
 ♀ *Sidusa* ?
 ♂ *Tomis jonesæ* spec. nov.

Family ŒCOBIIDÆ

Genus *Œcobius* Lucas 1845*Œcobius beatus* Gertsch and Davis

Figures 1, 2

Œcobius beatus Gertsch and Davis, 1937, p. 2, figs. 1, 2. "♀ holotype and immature paratypes from Acapulco, Mexico, June 17, 1936 (L. I. Davis)."

Male. Length, 1.5 mm.

The male is much darker than the holotype but the amount of color evidently depends upon the habitat. The eyes are more closely grouped than in the female and are on a low turret. The two black annulæ on each joint of the legs are reduced to large lateral dots. The abdominal markings are typical of the genus and are very distinct.

The palpus is large for the size of the spider. There are three conspicuous points all protruding from the cavity, a forked pair in the distal half and a longer point at the base. All are heavily chitinized.

Allotype ♂ Mexico; Acapulco, 19 December 1944 (S. Jones). 3♂ 5♀ Mexico; Acapulco, 18–19 December 1944 (S. Jones).

The male selected as an allotype was found under a rock and has the dark marks on the cephalothorax and the abdomen much more distinct than the specimens found at the base of palm leaves, these are quite pale.

Family THERIDIIDÆ

Genus *Theridion* Walckenaer 1805*Theridion maculipes* spec. nov.

Figure 3

Female. Length, 1.5 mm., ceph. 0.6 mm., abd. 1.1 mm. long, 1.0 mm. wide.

Cephalothorax pale, little darker about the eye area, anterior margin only slightly narrowed, cephalic portion little higher than the thoracic; *eyes* cover the anterior margin, anterior row recurved, a.m.e. dark, convex, separated by less than a diameter, a.l.e. smaller than a.m.e., separated from them by a radius of a.m.e., posterior

row straight, eyes surrounded by red rings, p.m.e. larger than a.m.e., separated by less than a diameter, p.l.e. separated from p.m.e. by about a diameter of p.l.e., lateral eyes touching, p.l.e. larger than a.l.e.; *quadrangle* slightly higher than wide and about the same width in front as behind; *clypeus* higher than quadrangle; *mandibles* vertical, pale brown; *labium* dark, fused to the sternum, wider than long; *maxillæ* pale, more than twice as long as the labium, slightly inclined; *sternum* white, triangular, about as wide as long, ending in a truncate lobe between the fourth coxæ which are separated by fully a diameter; *abdomen* globose, pale, with no definite pattern, a small white inverted V at the base surrounded by black that quickly fades, dorsum with small chitinized dots that may be the bases of colorless hairs, venter a dull brown with an irregular median white spot; *legs* relatively short, 1-2-4-3, II left missing, white with broken dark rings at the tips of tibiae and metatarsi, no spines but rows of colorless hairs, most conspicuous on the anterior tarsi and metatarsi; *epigynum*, a pair of heavily chitinized round openings just above the fold that touch on the median line with larger and more widely separated sacs beneath the surface just anterior.

Holotype ♀ Mexico; Acapulco, 19 December 1944 (S. Jones).

Theridion maculipes is very small even for a *Theridion*. The most conspicuous characters are the white legs with the black dots and the black inverted V at the base of the abdomen. The openings of the epigynum are very distinct.

***Theridion placidum* spec. nov.**

Figure 5

Female. Length, 2.6 mm., ceph. 0.9 mm., abd. 1.6 mm. long, 1.5 mm. wide.

Cephalothorax pale, cephalic portion slightly darker, shining, no hairs; *eyes* cover the anterior margin, anterior row slightly recurved, a.m.e. dark, separated by less than a diameter, convex, a.l.e. smaller than a.m.e., separated from them by about a radius of a.m.e., pos-

terior row procurved, p.m.e. larger than a.m.e., separated by less than a diameter, p.l.e. separated from p.m.e. by a diameter of p.m.e., lateral eyes touching, p.l.e. slightly larger than a.l.e.; *quadrangle* higher than wide, same width in front as behind; *clypeus* vertical, and higher than quadrangle; *mandibles* vertical, pale, cone-shaped; *labium* pale; *maxillæ* twice as long as labium; *abdomen* globose, with a narrow median dark stripe with wavering margins outlined with a narrow pale stripe each side, in the emarginations a dark spot, three pairs in all, sides a dull tan, entire abdomen with scattered colorless hairs, venter pale; legs, 1-2-4-3, and I and II right legs missing, I pair much the longest, pale, femora and tibiæ slightly darker at the tips, rows of colorless hairs; *epigynum*, a pair of small dark circular sacs, fully two diameters above the fold, separated by a diameter and a half, with small oval openings beneath as figured.

Holotype ♀ Mexico; Acapulco, 19 December 1944 (S. Jones).

Undoubtedly *Theridion placidum* has been confused with *Theridion spiralis* Emerton. The latter is a common species in the northern part of the United States and has been reported by Keyserling from Venezuela and by Banks from Teapic, Mexico. Unfortunately a specimen of the Banks identification is not in the museum collection. A type specimen of *Theridion spiralis* Emerton from Essex, Massachusetts, which is now before me, has the median stripe on the abdomen pale, heavily outlined by a dark stripe; the epigynum is separated from the fold by less than a diameter and the lower margin of the area is chitinized and rolled outward.

Family ARGIOPIDÆ

Genus *Aranea* Linnæus 1756

Aranea pallidula (Keys.)

Epeira pallidula Keyserling, 1863, p. 124, pl. 4, figs. 14, 15. "♀ St. Fè de Bogota (N. Granada)."

Araneus pallidulus F.O.P.-Cambridge, 1904, 2, p. 514, pl. 49, fig. 13.

Keyserling described this species from a single female and states that it is 5.2 mm. long. Probably because of poor illumination or magnification, he failed to see the small scape in the middle of the epigynum. F.O.P.-Cambridge had the species from Panama and in the brief description mentions that it is 8.5 mm. long. He also had the type before him. It is a common species at Barro Colorado, Canal Zone, but all specimens seen are about 5.0–5.5 mm. long, so that the size mentioned by Cambridge is probably an error. Such a discrepancy in size is often misleading.

Aranea vesta spec. nov.

Figures 4, 6

Female. Length, 5.5 mm., ceph. 2.6 mm., abd. 3.5 mm. long, 3.5 mm. wide.

Cephalothorax dull yellow, paler on cephalic portion, anterior margin about half the greatest width, no thoracic groove, a pair of long colorless bristles at the end of the cephalic slope; *eyes* cover the anterior margin, both rows recurved, a.m.e. largest, separated by about a diameter with a pair of long colorless bristles between, each bristle from a distinct base, p.m.e. smaller than a.m.e., separated by more than a diameter with one long bristle between, lateral eyes subequal and touching; *quadrangle* wider in front and higher than wide; *clypeus* about a radius of a.m.e. with 6 or 8 long bristles on the margin; *mandibles* dull yellow, vertical, with scattered long colorless bristles, no boss, fang groove slightly oblique, upper margin with 4 teeth, lower margin with 3 smaller teeth; *labium* pale brown, wider than long, tip rebordered; *maxillæ* pale, twice as long as labium, sides parallel; *sternum* pale, triangular, three-quarters as wide as long, emarginate opposite the coxæ, pointed at the tip, fourth coxæ almost touching; *abdomen* as wide as long, but with no shoulder angles, a median pale area at the base which rapidly spreads to the width of the abdomen, on the distal half a median shield-shaped dark area, with emarginate sides, venter brown with two irregular pale spots anterior to the spinnerets; spinnerets dark, closely grouped very near the tip; *legs*, 1–2–4–3, femora dark

brown, other joints much paler with faint darker bands near the tips, long black spines, no ventral spines on the femora, III and IV tibiae with dorsal basal spine; *epigynum*, area wider than long, a pale broad median scape with a recurved spoon-shaped tip, base with several short dark bristles, each side of the median scape rather narrow plain areas with outer margins heavily chitinized; a lateral view shows the median scape curved outward.

Male. Length, 3.6 mm., ceph. 2.0 mm. long, 1.5 mm. wide, abd. 2.0 mm. long, 1.6 mm. wide.

Cephalothorax pale brownish-yellow, cephalic portion narrowed and rather high, faint thoracic groove on the posterior third, scar of a median bristle midway between eyes and groove; *eyes* same as in the female with scars of the two bristles between the a.m.e.; bristles on the margin of the clypeus as in the female; *abdomen* oval, about two-thirds as wide as long, white with a dark folium on the posterior two-thirds with the emarginate sides as in the female, venter pale brown, with a pair of very faint pale spots anterior to the spinnerets; *legs*, 1-2-4-3, II right missing, pale with vague broad dark bands at the base and tip of tibiae, I and II coxae with a small hook, no ventral spines on the femora, spines long and dark, I pair, tibia, ventral, 2-2-2, basal and median pairs very long, lateral, 3-3, dorsal, 1-1-1, metatarsus, ventral, 0, prolateral, 1, retrolateral, 2, II pair, patella, at the tip, 1 very long, 1 short, tibia, ventral, 3p short at the base, 2 at the tip, metatarsus, dorsal, 1 at the base, III and IV tibiae, dorsal basal spine, IV femur near tip a retrolateral row of 6 slender spines, III femur, a retrolateral row of 3 very slender spines; *palpus* pale, patella, paracymbium abruptly recurved and the tip broad and bifid; the parts of the palpus best understood from the figure.

Holotype ♀ Mexico; Acapulco, 19 December 1944 (S. Jones). Allotype ♂ Mexico; Acapulco, 18 December 1944 (S. Jones). Paratypes 6 ♀ 8 ♂ Mexico; Acapulco, 18 December 1944 (S. Jones).

The generic position of *Aranea vesta* is very uncertain. It cannot be placed in the genus *Neosconella* F.O.P.-Camb. as it lacks ventral spines on the femora

of both male and female. As the first coxa of the male has a hook, it cannot be placed in the genus *Metepeira* F.O.P.-Camb.

The epigynum agrees fairly well with the figure of *Aranea detrimentosa* (O.P.-Camb.) This species was described from both male and female but F.O.P.-Cambridge evidently decided that they were not of the same species and placed the male with *Epeira nigrohumeralis* O.P.-Camb. ♀ and never placed the female originally described under the name *detrimentosa*. The male of *A. detrimentosa* has one long bristle on the tibia and another from the patella of the palpus and the parts of the palpus are quite unlike those of *A. vesta*.

Genus *Eriophora* Simon 1864

Eriophora edax (O.P.-Camb.)

Figure 7

Epeira edax O.P.-Cambridge, 1863, p. 30. “♂ ♀ Rio de Janeiro, Brazil.”

The specimen of *Eriophora edax* from Acapulco has a distinct tubercle above the spinnerets and the shoulder angles are slightly developed, both characters unlike the common *Eriophora balaustina* (McCook), found in Florida and Cuba. The abdomen is about 8.0 mm. long and the scape is 4.0 mm. The base is heavily chitinized and the tip extends beyond the base of the spinnerets. The species has been reported from various parts of Central America and from Puerto Rico.

Genus *Neosconella* F.O.P.-Cambridge 1903

Neosconella lineatipes (O.P.-Camb.)

Epeira lineatipes O.P.-Cambridge, 1889, p. 30, pl. 7, figs. 17, 18. “♀ ♂ Guatemala; road between Retalhulen and Mazatenango, Santa Ana, Guatemala City.”

Epeira lineatipes Keyserling, 1892, p. 190, pl. 9, fig. 141.

Neosconella lineatipes F.O.P.-Cambridge, 1902, p. 476, pl. 45, figs. 5, 6.

This species is a little smaller than the one described

by O.P.—Cambridge but it has the same spots and lines on the anterior pairs of legs, the mandibles and the cephalothorax. The figure of the epigynum given by O.P.—Cambridge is very misleading as the scape is turned back and it is not in a normal position. Keyserling has a much better description and the figures of the scape is in the normal position.

♀ Mexico; Acapulco, 18 December 1944 (S. Jones).

Family CLUBIONIDÆ

Genus *Anyphænella* Bryant 1931

Anyphænella pavida spec. nov.

Figure 12

Female. Length, 3.0 mm., ceph. 1.0 mm., abd. 2.0 mm.

Cephalothorax pale, slightly darker about the anterior margin, faint darker lateral stripes from the lateral eyes to the posterior margin, moderately convex, thoracic groove faint; *eyes*, anterior row straight, eyes subequal and equidistant, separated by about a radius, posterior row procurved, slightly longer than the anterior row, separated by more than a diameter; *quadrangle* higher than wide and wider behind than in front; *clypeus* about equals the diameter of a.m.e.; *mandibles* brown, vertical, rather long, fang groove transverse, impossible to see the teeth on the fang groove; *labium* gray, about as long as wide; *maxillæ* pale, not twice as long as labium, sides parallel, not emarginate on the outer margins; *sternum* pale, nearly as wide as long, convex, widest between II coxæ, IV coxæ separated by less than a diameter; *abdomen* pale, shaded with gray in no definite pattern, convex, venter pale, opening of the posterior spiracle one third nearer the spinnerets than to the fold, spinnerets closely grouped; *legs*, I right missing, 1-4-2-3, very slender and frail, pale, I pair very long, I tibia, 1.4 mm. long, spines, ventral, 2-2, long and slender, lateral, 2-2, metatarsus, ventral, 2-2; *epigynum*, area almost twice as wide as long, all the parts beneath the surface deeply colored, a pair of large dark sacs just anterior to the fold, separated by fully a diameter with a notched margin between, in the anterior half and slightly closer together, a pair of

oblique openings with chitinized margins and a darker point at the tip which may be the beginning of tubes.

Holotype ♀ Mexico; Acapulco, in palms, 18 December 1944 (S. Jones).

Anyphænella pavida is very delicate and fragile, so that it is impossible to count the teeth on the fang groove or the spines on the slender legs but the parts of the epigynum are very distinct. The spider has not oviposited.

Family SALTICIDÆ

Genus *Habronattus* F.O.P.-Cambridge 1901

Habronattus cambridgei spec. nov.

Figures 13, 15, 16

Habronattus viridipes F.O.P.-Cambridge, 1901, p. 224, pl. 21, figs. 4, 5, nec Hentz, 1846; nec *Pellenes viridipes* Peckham, 1885, 1900.

Male. Length, 4.5 mm., ceph. 2.5 mm. long, 1.5 mm. wide, abd. 2.1 mm. long, 1.6 mm. wide.

Cephalothorax dark chestnut brown, with a narrow band of white hairs above the anterior row of eyes and a few scattered white hairs in the ocular area and about the lateral margins, a dark triangle with the apex at the groove that extends to the posterior margin, cephalothorax fairly high, widest posterior to the dorsal eyes or between the second pair of legs, thoracic groove short in a circular depression between the dorsal eyes and midway in the cephalic plane, thoracic slope quite abrupt; *eyes*, anterior row recurved so that the upper margins form a straight line, a.m.e. touching, a.l.e. about one-half the diameter of a.m.e. and separated from them by a little more than a line, small eyes about midway between the first and third rows, dorsal eyes subequal with a.l.e.; *quadrangle* slightly wider behind than in front and about twice as wide as long; *clypeus* wanting below a.m.e. and no fringe on the margin; *mandibles* dark brown, vertical, long and narrow, fang groove very short, upper margin with three contiguous teeth, lower margin with one sharp tooth; *sternum* dark brown, oval, first coxæ separated by a diameter, fourth coxæ touching; *abdomen* discolored so that markings are obscured, ven-

ter brown, with lateral darker stripes; *legs*, 3-4-1-2, III pair not modified and no fringes on any leg, brown, with pale rings most conspicuous on the posterior pairs, I pair, femur, prolateral surface slightly flattened and covered with white scales, patella and tibia with many white scales, spines, patella, prolateral, 1, tibia, ventral, 2-2-2, metatarsus, ventral, 2-2, basal pair very long, II pair with area of white scales on femur smaller than on I pair, III and IV tibiae with dorsal basal spine; *palpus* not as long as cephalothorax, femur and patella covered dorsally with white scales, tibia and tarsus pale brown, tibia not as long as patella, tibial apophysis dark, tarsus almost circular, bulb about circular, flattened, embolus from a distinct lobe of the bulb, starting about the middle on the outer side and ending in a very slender tube in a groove at the tip of the cymbium, the second process heavier, from just below the middle of the bulb, with an abrupt turn at the lower margin and ending about opposite the origin on the inner margin.

Female. Length, 5.1 mm., ceph. 2.4 mm. long, 1.7 mm. wide, abd. 2.5 mm. long, 1.7 mm. wide.

Cephalothorax pale brown, scantily covered with white hairs, darker about the eyes, moderately high, widest posterior to the dorsal eyes, thoracic groove short, in a circular depression about the middle of the cephalic area, thoracic slope concave; *eyes* as in the male; *mandibles* and *mouth parts* as in the male; *sternum* a pale brown, oval, first coxae separated by more than a diameter, fourth coxae touching; *abdomen* oval, dorsum flattened, pale, speckled with small patches of black hairs, venter pale outlined by a paler square; *legs*, 3-4-1-2, anterior pairs pale brown, on dorsal side, much paler on ventral, posterior pairs distinctly ringed on the dorsal side with dark and pale rings, ventral side pale; *epigynum* of the typical form with an oblique oval opening each side of a small triangle, posteriorly each side curved dark tubes with a small opening below the triangle as figured.

Holotype ♂ Mexico; Acapulco, 17 December 1944 (S. Jones). Allotype ♀ Mexico; Acapulco, 17 December 1944 (S. Jones).

F.O.P.-Cambridge probably had this species which he identified in the Biol. Centr. America, as *Habronattus viridipes*, following the Peckhams identification of 1885 and 1900, of the Hentz species. Later in 1909, the Peckhams corrected their identification of *viridipes* Hentz and named the species found in Texas, *fallax*. A year latter, in 1910, Petrunkevitch in his catalogue, erroneously considered the Mexican species the same as *fallax* from Texas.

Habronattus viridipes (Hentz) has a heavy fringe of white hairs on the first pair of legs and the third patella is modified. *Habronattus fallax* (Peckham) has no fringe on the first pair of legs, the third patella not enlarged and the legs conspicuously ringed with white and black hairs. *Habronattus cambridgei* has no fringe on the first pair of legs, but the femur is slightly flattened and the area is covered with white scales; the cephalothorax is more slender than in the other two species and has a brush of white hairs above the first row of eyes and no white scales on the clypeus.

The female of *Habronattus cambridgei* is strikingly unlike the other species. Both *viridipes* and *fallax* have distinct abdominal patterns as in the males, while in *cambridgei* the abdomen has no dorsal pattern. The epigynum is typical of others of the genus.

Genus *Metaphidippus* F.O.P.-Cambridge 1903

Metaphidippus gratus spec. nov.

Figures 8, 9, 11

Male. Length, 5.4 mm., ceph. 2.5 mm. long, 2.1 mm. wide, abd. 5.1 mm. long, 1.6 mm. wide.

Cephalothorax chestnut-brown, with scattered iridescent white hairs, wide lateral stripes of white hairs from the a.m.e. that do not meet at the posterior margin, cephalic portion high, with a recurved shallow depression posterior to the dorsal eyes, then sloping gradually to the posterior margin, lateral margins rounded not parallel, thoracic groove short in the depression between the dorsal eyes; eyes, anterior row recurved, so that the upper margins of a.m.e. and the lower margins of a.l.e.

form a straight line, a.m.e. separated by little more than a line, and from a.l.e. by about a diameter of a.l.e., a.l.e. about a radius of a.m.e., second row of eyes one-third nearer anterior row than to dorsal eyes, p.l.e. not on the extreme margin of the carapace and subequal with a.l.e.; *quadrangle* slightly wider behind than in front; *clypeus* about wanting below a.m.e.; *mandibles* paler than cephalothorax, slightly divergent, basal third covered with long white hairs, only slightly narrower at the base than at the fang, fang groove with a blunt cusp on the upper margin, lower margin with a small sharp tooth opposite the cusp on the upper margin, fang a little longer than the groove; *labium* dark brown, longer than wide, tip rebordered; *maxillæ* brown, not twice as long as labium, upper outer angle produced in a slight lobe; *sternum* brown, longer than wide; *abdomen* oval, dorsum flat, a dark brown with wide lateral stripes of white hairs that do not meet at the base but join above the spinnerets, venter a paler brown; *legs*, 1-4-2-3, dark brown, I pair slightly enlarged, I femur with a retrolateral fringe of short white hairs, scattered white scales on tibia, other legs brown, with a few white hairs, spines, I pair, femur prolateral, 1, patella, 0, tibia, ventral, 2-2-2, all shorter than the diameter of the joint, the prolateral row extends to the middle of the joint, metatarsus, ventral, 2-2, II pair, spines the same as on I pair but smaller, few spines in III and IV pairs, no dorsal basal spine on III and IV tibiæ; *palpus* about as long as cephalothorax, femur slender, patella and tibia subequal, cymbium small and slender almost three times as long as as wide, tibial apophysis a slender straight spur, not as long as the diameter of the joint and parallel to the cymbium, bulb only slightly prolonged onto the tibia, embolus at the tip, a straight stout spur, abruptly narrowed near the tip.

Female. Length, 6.4 mm., ceph. 2.6 mm. long, 2.1 mm. wide, abd. 4.0 mm. long, 2.5 mm. wide.

Cephalothorax chestnut-brown, with scattered white hairs, no wide white marginal stripe as in the male and the sides not rounded, recurved shallow depression posterior to the dorsal eyes with the thoracic groove as in

the male; *eyes* the same as in the male; *clypeus* as in the male, with a mass of white hairs beneath the a.l.e. and a fringe of white hairs on the margin; *mandibles* dark brown, basal half with a mass of white hairs, vertical, not narrowed at the base as in the male, fang groove almost horizontal, upper margin with a scopula of stiff hairs, lower margin with a sharp tooth; *labium* dark brown, longer than wide; no lobe on the maxillæ; *sternum* as in the male; *abdomen* pale, with a median dark stripe, heaviest on the posterior two-thirds, with the lateral margins broken by three pairs of spots covered with white hairs, the anterior pair at the first muscle spots, venter pale; *legs*, 1-4-2-3, III left missing, I pair slightly enlarged, dark with no rings, other pairs paler, III and IV pairs with faint dark rings at the ends of each joint, spines as in the male; *epigynum*, area wider than long, with a pair of oval, slightly oblique openings at the anterior portion, the median area convex and the posterior margin deeply edentate.

Holotype ♂ Mexico; Acapulco, 19 December 1944 (S. Jones). Allotype ♀ Mexico; Acapulco, 19 December 1944 (S. Jones).

Metaphidippus gratus is related to *Metaphidippus lanceolatus* F.O.P.-Cambridge, known only from the male, from Mexico and Guatemala, and also found by Dr. Chickering at Boquete, Pan. Rep., and identified by Mr. Banks from Costa Rica. Cambridge has figured three types of teeth on the fang groove, showing that the teeth are very variable in this species. The legs are described with dark and pale rings and the abdomen has white lateral stripes that meet at the base, the area between with paired dark spots. The Acapulco species is larger and darker than the specimens of *M. lanceolatus* from Costa Rica.

***Metaphidippus purus* spec. nov.**

Figures 10, 14

Male. Length, 3.6 mm., ceph. 1.6 mm. long, 1.6 mm. wide, abd. 2.0 mm. long, 1.1 mm. wide, mand. 1.0 mm. long.

Cephalothorax a deep mahogany-brown, eyes on black

spots, a narrow stripe of white hairs below the second eye row to near the posterior margin, this is not a marginal stripe, and a faint recurved cross bar of white hairs posterior to the dorsal eyes, a pair of dark spots in the middle of the eye area, many small white iridescent hairs on entire carapace, cephalic portion high and continued on the same plane halfway to the posterior margin when it falls abruptly, widest posterior to the dorsal eyes, lateral margins rounded, thoracic groove short; *eyes*, anterior row recurved, seen from the front, the upper margins of the eyes form a straight line, eyes equidistant, a.m.e. separated by little more than a line, a.l.e. less than a radius of a.m.e., eyes of the second row nearer the first than to the third row, dorsal eyes not quite on the extreme margin of the carapace; *quadrangle* slightly wider behind than in front; *clypeus* very narrow below a.m.e., with a fringe of white hairs on the margin; *mandibles* brown, shining, no hairs, slightly divergent, rounded and slender, only slightly wider at the base than at the tip, upper margin of the fang groove with one small tooth one-third from the base of the fang, lower margin with a much larger tooth or cusp near the base of the fang, fang long and sinuous; *labium* dark brown, longer than wide with a recurved tip; *maxillae* brown, twice as long as the labium, with upper outer angle produced in a short lobe; *sternum* brown, oval, convex; *abdomen* oval, a narrow lateral stripe of white hairs that do not meet at the spinnerets and is narrowly separated at the base, a pale middle stripe with darker stripes each side on the posterior half broken into four pairs of darker spots, scattered iridescent scales on the pale area, venter pale; *legs*, 1-4-2-3, II left missing, I pair enlarged, brown, with tarsus pale, femur flattened laterally, spines, patella, 0, tibia ventral, 2-2-2, prolateral row extends to about the middle of the joint, metatarsus, ventral, 2-2, II pair paler than the I pair, spines, patella, 0, tibia, ventral, 2-2-?, III and IV pairs with distal half of femur dark, no spines, I coxa brown, others pale and quite long; *palpus* longer than cephalothorax, femur curved, basal half pale with large white scales, patella longer than tibia, tibial apophysis a slender black spine

parallel to the cymbium, bulb small, not extending onto the tibia, embolus a slender curved black spine at the tip of the bulb; both bulb and embolus may be somewhat distorted.

Female. Length, 4.4 mm., ceph. 2.0 mm. long, 1.6 mm. wide, abd. 2.6 mm. long, 1.6 mm. wide.

Cephalothorax the same as in the male, except that the recurved transverse bar of white scales is much heavier and the lateral stripe of white scales is quite short, a clavate bristle below the eyes of the second row; *eyes* same as in the male; *clypeus* the same as the male with a fringe of white hairs on the margin; *mandibles* dark brown, with white hairs, vertical, fang groove transverse, lower margin with a fissident tooth; *labium* and *maxillæ* same as in the male, but no lobe on the upper outer angle; *sternum* dark brown, all coxæ pale; *abdomen* oval, dorsum flattened, with a pale median stripe that extends just beyond the middle, a dark basal spear-mark, either side the dark areas are broken into four dark spots as in the male, often with short cross bars of white scales separating the dark spots, venter pale with a large dark triangle in the center; *legs*, 1-4-2-3, shorter than in the male, I pair not enlarged, brown, tarsus and metatarsus pale, femur with a mass of white scales on the sides, spines, patella, 0, tibia, ventral, 2-2-2, metatarsus, ventral, 2-2, II pair, femur brown with long white hairs, tibia with a dark ring at the tip, other joints pale, spines, patella, 0, tibia, ventral, a prolateral row, 1-1-1, metatarsus, ventral, 2-2, III and IV pairs, pale with dark rings on femora and tibiæ, very few spines; *epigynum*, probably recently moulted as the parts are only lightly chitinized, on the anterior half a pair of large oblique oval openings, posterior margin deeply notched with a pair of small circular hyaline sacs each side.

Holotype ♂ Mexico; Acapulco, in lagoon on rubber trees, 18 December 1944 (S. Jones). Allotype ♀ Mexico; Acapulco, on rubber trees, 18 December 1944 (S. Jones). Paratypes, ♀♀ pullus, Mexico; Acapulco, on rubber trees, 18 December 1944 (S. Jones).

Metaphidippus purus is related to *Metaphidippus*

pernotus (Petr.) = *M. pernix*, *M. felix* F.O.P.-Camb., nec Peckham, from Guatemala but it lacks the large tooth on the upper margin of the fang groove and has but one small tooth instead of two teeth near the base of the same margin. The tibial apophysis is much longer on *M. purus* and the median area of the dorsum is broken into four pairs of dark spots. The female of *M. pernotus* (Petr.) is not known.

Genus *Tomis* F.O.P.-Cambridge 1901

Tomis jonesæ spec. nov.

Figure 17

Male. Length, 5.1 mm., ceph. 2.5 mm. long, 2.0 mm. wide, abd. 2.6 mm. long, 1.6 mm. wide.

Cephalothorax chestnut-brown, ocular area covered with short white scales with a stripe on the median third of longer dark hairs that extends onto the clypeus, a broad marginal stripe of white hairs from the anterior eye row to the posterior margin and a small median spot of white hairs on the posterior slope of the cephalothorax, carapace rather high, sloping very gradually from the anterior eye row to halfway between the groove and the posterior margin where it falls abruptly, widest posterior to the groove, groove very short and in a circular depression; *eyes*, anterior row recurved, eyes very unequal in size, a.m.e. separated by little more than a line, and from a.l.e. by about double that space but less than a radius of a.l.e., small eyes midway between first and third rows, p.l.e. smaller than a.l.e. and not on the margin of the carapace; *quadrangle* narrower behind than in front and two-thirds as long as wide; *clypeus* about a radius of a.m.e., slightly retreating with a long median recurved bristle below a.m.e.; *mandibles* dark brown, vertical, rather small, fang groove transverse, upper margin with four small teeth, lower margin with no teeth, fang with a thick base; *labium* brown, longer than wide, tip pale and narrower than the base; *maxillæ* brown, not twice as long as the labium; *sternum* brown, flat, about two-thirds as wide as long, with many long hairs about the margins, fourth coxæ separated by about

half a diameter; *abdomen* oval, brown, dorsum flat, clothed with brown and white hairs in no distinct pattern except for three dark chevrons on the distal half and large spots of white hairs each side, venter pale with many white hairs; *legs*, 4-1-2-3, pale, with rather vague darker rings on the tibiæ and patellæ, spines, I and II pairs, tibiæ, ventral, 2-2-2, metatarsi, ventral, 2-2, III and IV tibiæ, dorsal basal spine and median and apical whorls of spines; *palpus*, about as long as cephalothorax, brown, femur with a dorsal crest of white hairs, patella and tibia of about equal length, tibia about as wide as long with a retrolateral fringe of long white hairs and a prolateral brush of dark hairs so that the joint appears very broad, tibial apophysis a very slender dark shiny spur that extends beyond the middle of the cymbium, cymbium little longer than the tibia, embolus starts at the lower margin of the bulb, follows the contour of the cavity and ends as a slender free tip at the tip of the cymbium; in the bulb a conspicuous tube forms a U-shaped loop.

Holotype ♂ Mexico; Acapulco, on grass at beach, 18 December 1944 (S. Jones).

The genus *Tomis* was based by F.O.P.-Cambridge on a single species, *Tomis palpalis* F.O.P.-Camb. from Teapa, Mexico. *Tomis jonesæ* is separated from the genotype, by the slightly smaller size, the mass of short white hairs on the ocular area with the median stripe of longer dark hairs, the four teeth on the upper margin of the fang groove that are not grouped on a lobe or process as figured by Cambridge, and the U-shaped tube in the bulb of the palpus. Both species have the slender shining tibial apophysis and a very broad tibia of the palpus.

The stripe of black hairs on the ocular area is very conspicuous and if present on the genotype, would have been noted by F.O.P.-Cambridge.

LITERATURE CITED

Cambridge, F.O.P.-

1899-1905. Arachnida; Araneides and Opiliones. 2: XII + 610, pls. 1-54. *Biologia Central-Americana*.

Cambridge, O.P.

1863. Descriptions of newly discovered Spiders captured in Rio Janeiro by John Gray, Esq., and the Rev. Hamlet Clark. *Ann. Mag. Nat. Hist.*, 11(3): 29-45.

1889-1902. Arachnida; Araneidea. 1: XV + 317, pls. 1-39. *Biologia Central-Americana*.

Gertsch, W. J., and Davis, L. Irby

1937. Report on a collection of Spiders from Mexico. I. *Amer. Mus. Nat. Hist.*, Nov., no. 961: 1-29.

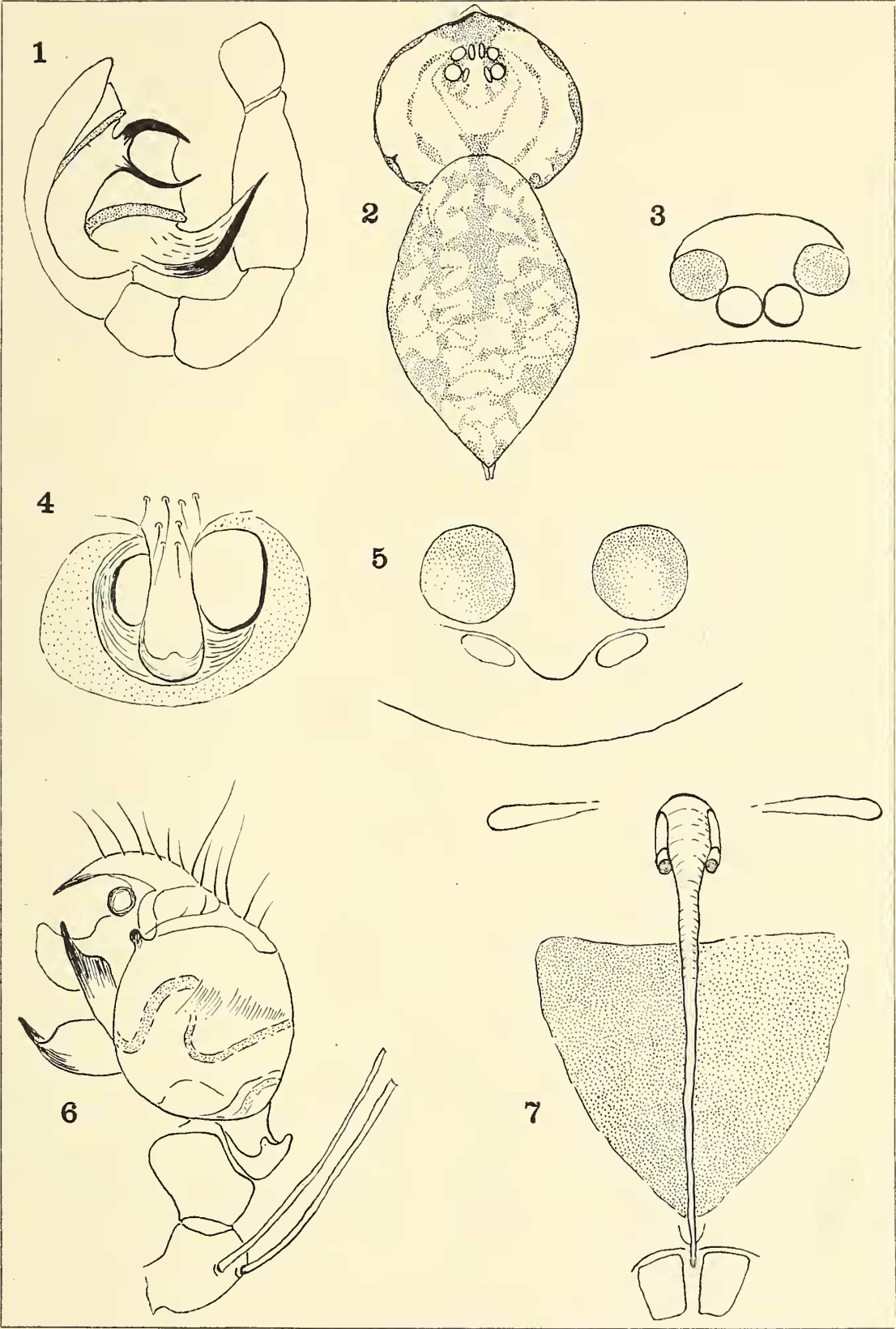
Keyserling, Graf Eugen

1864. Beschreibungen neuer und wenig bekannter Arten aus der Familie Orbitelæ Latr. oder Epeiridæ Sund. *Sitz-ber. Isis, Dresden*, 1863, pp. 63-98, 119-154, pls. 1-7.

1892. Die Spinnen Amerikas. *Epeiridæ*, pt. 1. Nürnberg, 4 (1): 1-208, pls. 1-9.

EXPLANATION OF PLATE 9

- Fig. 1. *Æcobius beatus* Gertsch and Davis, left palpus.
- Fig. 2. *Æcobius beatus* Gertsch and Davis, male, dorsal.
- Fig. 3. *Theridion maculipes* spec. nov., epigynum.
- Fig. 4. *Aranea vesta* spec. nov., epigynum.
- Fig. 5. *Theridion placidum* spec. nov., epigynum.
- Fig. 6. *Aranea vesta* spec. nov., left palpus.
- Fig. 7. *Eriophora edax* (Blackw.), epigynum.



BRYANT—SPIDERS FROM MEXICO

EXPLANATION OF PLATE 10

- Fig. 8. *Metaphidippus gratus* spec. nov., left palpus.
Fig. 9. *Metaphidippus gratus* spec. nov., epigynum.
Fig. 10. *Metaphidippus purus* spec. nov., left palpus.
Fig. 11. *Metaphidippus gratus* spec. nov., male, left mandible, ventral.
Fig. 12. *Anyphænella pavidæ* spec. nov., epigynum.
Fig. 13. *Habronattus cambridgei* spec. nov., left palpus, tibial apophysis.
Fig. 14. *Metaphidippus purus* spec. nov., epigynum.
Fig. 15. *Habronattus cambridgei* spec. nov., left palpus, ventral.
Fig. 16. *Habronattus cambridgei* spec. nov., epigynum.
Fig. 17. *Tomis jonesæ* spec. nov., left palpus.

